## CLAIMS

1. A method for fabricating a semiconductor device, the method including: a film formation step for forming amorphous silicon film on a substrate; a preprocessing step, performed in one or more steps, for modifying the amorphous silicon film to prepare the amorphous silicon film to be made polycrystalline; and a laser processing step for producing polycrystalline silicon film by performing laser processing on the amorphous silicon film modified through the preprocessing step,

wherein the method further comprises a laser power inspection/extraction step for determining a laser power based on predetermined inspection performed on a predetermined region of the amorphous silicon film having undergone the preprocessing step, and

wherein the laser processing step uses the laser power determined in the laser power inspection/extraction step.

2. The method of claim 1,

wherein the laser power inspection/extraction step determines the laser power through inspection using spectroscopy.

3. The method of claim 2,

wherein the spectroscopy is performed at a measurement wavelength of 700 nm to 800 nm.

4. The method of claim 1,

wherein the laser power inspection/extraction step determines the laser power through inspection using imaging whereby light is shone at a measurement spot to detect an image acquired by targeting the measurement spot.

5. The method of claim 4,

wherein the inspection using the imaging inspects presence of a foreign object or an abnormality in film quality.

6. The method of one of claims 2 to 5,

wherein the inspection using the spectroscopy or imaging is performed with measurement light shone at a measurement spot from around the measurement spot.

7. The method of claim 1,

wherein the laser power inspection/extraction step performs inspection near laser processing equipment that performs the laser processing in the laser processing step.

8. The method of claim 1,

wherein the laser power inspection/extraction step inspects a film surface on the substrate.

9. The method of claim 1,

wherein the laser power inspection/extraction step performs inspection by using equipment provided with both an inspection function for inspecting the polycrystalline silicon film and an inspection function for determining the laser power.

10. The method of claim 1,

wherein the laser power inspection/extraction step sets a measurement fixed-quantity value against which to evaluate measurement results.

11. The method of claim 10,

wherein the measurement fixed-quantity value is determined by using equipment having a calibration substrate placed thereon and provided with a function for performing calibration.

12. The method of claim 1,

wherein the laser power inspection/extraction step performs inspection by using equipment provided with both a function for inspecting the polycrystalline silicon film and a function for automatically determining an optimum laser power value and automatically feeding the automatically determined optimum laser power value to laser processing equipment.

13. The method of claim 1,

wherein the laser processing step uses a laser power 5 mJ or 10 mJ lower than an optimum laser power value determined in the laser power inspection/extraction step.

14. The method of claim 1,

wherein the laser power inspection/extraction step performs multiple-point measurement inspection on the polycrystalline silicon film.

15. The method of claim 1,

wherein the laser power inspection/extraction step inspects, before the laser processing, film on the substrate to find a ratio of amorphous silicon film to polycrystalline silicon film.

16. The method of claim 1,

wherein the laser power inspection/extraction step inspects, after the laser processing, film on the substrate to find a ratio of amorphous silicon film to polycrystalline silicon film.

17. The method of claim 1,

wherein the laser power inspection/extraction step inspects, before and after the laser processing, film on the substrate to find a ratio of amorphous silicon film to polycrystalline silicon film.

18. An apparatus for inspecting a semiconductor, the apparatus comprising: a light-emitting portion that emits light; an illuminating member that reflects the light to direct the light to a predetermined substrate; an enlarging portion that receives the light reflected from the predetermined substrate and enlarges the light; a camera portion that converts the light enlarged by the enlarging portion into image data; a processing portion that reads the image data from the camera portion and performs predetermined data processing on the image data; a memory portion that stores an evaluation condition against which a result of the predetermined data processing is evaluated to determine a predetermined value; an evaluating portion that evaluates the result of the predetermined data processing against the evaluation condition to determine the predetermined value; and a transmitting portion that establishes connection for communication

with an external apparatus and transmits the predetermined value to the external apparatus.

19. The apparatus of claim 18,

wherein the illuminating member directs the light to the predetermined substrate so that the light strikes the predetermined substrate at an angle of 30 degrees to 60 degrees.

20. The apparatus of claim 18, further comprising: a spectroscopic apparatus that shines light of a plurality of different wavelengths in a visible spectrum region to the predetermined substrate, then receives the light reflected from the predetermined substrate to acquire spectroscopic data, and then feeds the spectroscopic data to the processing portion,

wherein the processing portion converts the spectroscopic data into light intensity distribution data of the reflected light at the different wavelengths.

21. The apparatus of claim 20,

wherein, when amorphous silicon film or polycrystalline silicon film is formed on the substrate, the different wavelengths are from 700 nm to 800 nm.

22. The apparatus of one of claims 18 to 21,

wherein, when amorphous silicon film or polycrystalline silicon film is formed on the substrate, the evaluating portion determines an optimum laser power value at which to modify the amorphous silicon film into polycrystalline silicon film.